

A Blueprint for Learning Science First Grade

The ***Blueprint for Learning*** is a companion document for the Tennessee Curriculum Standards which are located at www.tennessee.gov/education. Although the curriculum adopted by the State Board of Education in its entirety remains on the web for additional reference, this reformatted version makes the curriculum more accessible to classroom teachers.

Key features of the reformatted version are:

- All grades for each content area are provided in the printed manual.
- The skills within each grade are identified as to whether they are introduced, developed, or have been mastered and are now being maintained at that level.
- The skills correlating with the state criterion referenced test (CRT) are also identified for classroom instruction.
- In the Language Arts section, the assessed skills (performance indicators) are identified not only for the state's CRT in grades 3-8 but also for the writing assessment in grades 5 and 8.
- This guide makes the planning of instruction for students with varying abilities easier to accomplish.
- Teachers can plan and work together to improve school wide student achievement through curriculum integration across content areas and grade levels.
- Teachers can identify current grade level skills as well as those needed to prepare students for the next year.

Skills are coded and identified as Introduced (I), Developing (D), State CRT and Writing Assessed (A), and Mastered and Maintained (M).

- Introduced (I) skills are new skills presented at that grade level. Even though a skill is considered introduced at a grade level, some development would also occur.
- Developing (D) skills are skills that have been introduced at a previous grade level. At this stage of development the skills are being refined and expanded.
- Assessed (A) skills are those skills that are correlated to the state performance indicators for the CRT portion of the achievement test (grades 3-8) and the writing assessment (grades 5 and 8). The identified skills are formally assessed through the CRT; however, all skills are informally assessed in the classroom.
 - For the purpose of data reporting, assessed (A) skills are grouped into categories indicating related skills and knowledge. For example, grammar, mechanics, and usage are grouped together under the grammar (G) category. Each state assessed indicator included on the Blueprint carries a legend showing that it is assessed and indicating the category in which it will be reported (e.g., Assessed/Grammar=A/G).
- Mastered and Maintained (M) indicates a skill that has been introduced, developed, and assessed. Even though a skill may be formally assessed, the development and expansion of the skill still continues.

KEY

I = Introduced D = Developing A = State Assessed M = Mastered

REPORTING CATEGORY

**SF = Structure & Function of Organisms
LC = Life Cycles & Biological Change**

**ME = Motion & Forces, Forms of Energy
ER = Earth Features & Resources**

**E = Ecology M = Matter
SC = Space, Weather, & Climate**

**Note: "A" indicates the state curriculum (CRT) assessment only.
All the skills ("I"... "D"... "A"... "M") are addressed in the classroom assessment.**

SCIENCE **First Grade**

LIFE SCIENCE STANDARDS

Cell Structure and Function

The student will investigate the structure and function of plant and animal cells.

Key	Reporting Category	
I		Use magnifiers to observe smaller parts of larger objects.
D		Observe and describe what happens when an object loses a part.

Interactions Between Living Things and Their Environment

The student will investigate how living things interact with one another and with nonliving elements of their environment.

D		Use the senses to explore the environment.
I		Collect information about organisms that occupy specific environments.
I		Provide examples of pollutants in a specific environment.

Food Production and Energy for Life

The student will study the basic parts of plants, investigate how plants produce food, and discover that plants and animals use food to sustain life.

I		Recognize the basic needs of living things (e.g., food, water, sunlight, and air).
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Diversity and Adaptation Among Living Things

The student will understand that living things have characteristics that enable them to survive in their environment.

I		Observe and note differences among plants and animals of the same kind.
D		Recognize the environment in which an organism is typically found.

Earth and Its Place in the Universe

The student will investigate the structure of the universe.

D		Distinguish between objects that appear in the day and nighttime sky.
I		Recognize that the moon is the closest object in the sky.
I		Recognize that there are tools for observing objects in the day and nighttime sky.
D		Observe and illustrate the position of the sun at different times of the day.
I		Recognize that shadows change length and position during the course of a day.

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Atmospheric Cycles

The student will investigate the relationships among atmospheric conditions, weather, and climate.

D		Recognize that weather conditions are constantly changing.
I		Describe weather patterns associated with the seasons.
D		Associate temperature, precipitation, and wind conditions with various types of weather.
I		Identify the appropriate tool for measuring temperature, precipitation, and wind speed/direction.

Earth Features

The student will understand that the earth has many geological features that are constantly changing.

I		Distinguish between land and water environments.
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Earth Resources

The student will investigate the properties, uses, and conservation of earth's resources.

D		Use observable properties to distinguish among a variety of earth materials.
D		Identify ways that earth resources benefit man.

PHYSICAL SCIENCE STANDARDS

Forces and Motion

The student will investigate the effects of force on the movement of objects.

D		Observe and describe how the movement of an object can be changed (e.g., push/pull, fast/slow).
I		Recognize objects that are balanced.

Structure and Properties of Matter

The student will investigate the characteristic properties of matter.

D		Compare objects according to weight, length, and size.
I		Distinguish between solids and liquids.

Interactions of Matter

The student will investigate the interactions of matter.

I		Observe and describe changes that can occur when two materials interact.
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Energy

The student will investigate energy and its uses.

D		Describe the effect of the sun's energy on different materials.
D		Classify sounds according to their basic characteristics (e.g., loud/soft, natural/man/made).

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